Federal Reserve System

Supervision and Regulation
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An Introduction to Asset Securitization

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An Introduction to Asset Securitization

INTRODUCTION

The purpose of this document is to introduce the reader to the fundamentals of the securitization process. While certain types of securitized assets may be discussed in portions of this document, it is not intended to address specific products; in fact, this approach has been intentionally avoided. Instead, this document focuses on the aspects of securitization indigenous to all types of securitized assets - the motivations for the selling of assets, the mechanics generally employed in or associated with the process, and the potential risks and rewards of both issuing and investing in asset-backed securities. Particular risk attributes and/or peculiarities associated with specific types of asset-backed securities are discussed in appendices to this document.

AN INTRODUCTION TO ASSET SECURITIZATION

In its simplest form, securitization is nothing more than the selling of assets. In this respect, banks have been selling assets which they originated for some time- more particularly, via participations or outright sales with or without recourse. While the former are associated with sale of a single, large credit, banks have also, for some time, been "packaging" smaller loans for resale. More specifically, residential real estate loans have been packaged and sold to a broad purchasing market with substantial depth for some time; this has been substantially facilitated by the support provided by such government programs as the Government National Mortgage Association ("GNMA"), Federal Home Loan Mortgage Corporation ("FHLMC"),Federal Home Loan Mortgage Association ("FNMA"), and now the Federal Agricultural Mortgage Corporation ("Farmer Mac").

More recently, however, banks have been pooling other types of assets- credit card receivables, automobile loans, lease receivables, leveraged-buy out credits- and selling securities backed by that pool of assets for cash. While this encompasses the packaging and sale of mortgages, and nothing in the text of this document is believed to be inapplicable to mortgage-backed securities, the risks indigenous to the latter are of a somewhat different nature than that of the former, which lack the guarantee of the federal government, and the secondary market supporting mortgage-backed securities is well-developed in comparision with that of other asset-backed securities.

WHY SECURITIZE?

The driving forces behind securitization are many, and the prevailing reason for any one financial institution to package and sell assets may be quite different from that of another. As such, the following discussion does not address these incentives in necessary order of importance.

Bypassing Regulatory Costs

In the case of regulated institutions, i.e., banks and thrifts, the selling of assets in such a fashion as to meet the regulatory requirements for removal from the balance sheet might mean substantial cost savings by having avoided capital maintenance requirements, reserve requirements, and deposit insurance premiums. Originating and holding any given loan means maintaining a certain amount of capital in relation to that asset, and maintaining reserves against deposits funding the remainder of the credit. Also, as FDIC insurance premiums are based on deposit balances, they are affected by the funding of that asset with deposits. If, however, an asset can be originated and meet the legal and regulatory accounting requirements for a sale (the latter are discussed in a separate, complementary document entitled "Accounting Issues Relating to Asset Securitization ")and thereby be removed from its books, the costs associated with capital and reserve requirements may have been eliminated, or substantially reduced, by securitization.

A bank may have the systems and loan expertise consistent with further portfolio expansion, but asset growth may often be limited by inadequate supporting capital, or concerns about concentration of risk. Securitization would afford such an institution the ability to take a more aggressive lending posture without being concerned with balance sheet effects. The bank can continue its lending with the intent of securitizing new credits and not decrease its capital ratios.

Funding and liquidity

Securitization provides originators with an additional source of funding, and is sometimes referred to as furthering "asset-based" liquidity. Often times, securitized issues carry a higher credit rating than the debt obligations of the originator. This is generally achieved by use of what is termed a bancruptcy- remote vehicle such as a trust which acts as a repository for the assets and issuer, or obligor, of the securities funding those assets. This improved rating (generally AAA) affords the originator savings

on funding costs and also substantially broadens the investor base available to the originator. In the case of banks, credit ratings are effectively arbitraged - the credit rating of the asset-backed security is generally greater than that which would be assigned to securities directly issued by the bank and collateralized by those same assets. While there are costs associated with the mechanical process of obtaining that higher rating, often times these costs are less than those associated with direct funding, thereby making securitization a more cost effective means of funding.

The securitization process has taken a set of illiquid loans and converted them into a security with a separate rating, saleable in a secondary market. While the secondary market for these securities (other than those that are mortgage - backed) is not presently very deep, it is certainly deeper than any market for the loans themselves. While the funding/ liquidity benefits described above are perhaps most fully enjoyed by banks securitizing assets, they have also been enjoyed by other corporations as well. Sperry Corporation avoided the costs associated with borrowing directly in the markets under its BBB rating by establishing a separate company or trust to hold the lease receivables it wished to securitize. That entity in turn funded its purchase of those assets by selling its own securities which had a AAA rating.

ASSET/LIABILITY MANAGEMENT

Securitization of assets can be used to significantly reduce any interest rate risk associated with an asset/liability mismatch on the part of the originator. For example, during the early 1980's, the cost of funding rose substantially as did the general level of interest rates, and many institutions - thrifts in particular- found themselves funding fixed rate, low-yielding, longer term assets with higher priced, volatile liabilities. At the same time, they had lost the opportunity to make a number of higher quality, short-term loans as large corporate customers have gone directly to the commerical paper markets for funding at cheaper rates.

As might be expected, thrifts have availed themselves of the opportunity to substantially realign

their balance sheets via securitization during the recent period of falling interest rates. By selling off thirty-year fixed rate mortgages which were funded with expensive shorter-term deposits, some thrifts have better matched the maturities between their assets and liabilities. The same holds true for the captive finance subsidiaries of the major automobile makers particularly active in the securitization, or asset sales market. GMAC has securitized a large volume of its automobile paper, moving away from funding via short-term commercial paper towards funding via asset-backed securities with a closer maturity to that of the asset it funds. Securitization is one of the few means available for achieving matched funding, and is sometimes used solely for this reason. The cost of securitizing a package of assets might exceed savings on funding attributable to improved ratings; however, if the matching of asset and liability maturities is a paramount concern, an institution might choose to still securitize the assets in question.

Enhancement of Return on Assets/ Return on Equity

Securitization, in and of itself, can improve a bank's return on assets and equity; however, these returns are substantially augmented by the originator customarily being retained- and paid a fee- to service the assets supporting the related securities. "By securitizing loans, banks can remove assets from their books and either invest the proceeds in a more lucrative venture or begin the loan origination process again and utilize turnover and volume to generate profits."[1] Banks can enhance their returns on both assets and equity, as well as improve capital and leverage ratios, through the removal of assets from the books and recognition of fee income.

Setting aside the controversial issues of excess servicing fees, and "up front" fees which might be taken at the point of sale (discussed in "Accounting Issues Relating to Asset Securitization"), collecting what can sometimes be substantial servicing fees over the life of the security issue on assets removed from the books can improve an institution's reported return on assets and equity. In the case of certain money center banks active in securitizing their assets, the complexion of their earnings has been substantially changed for this very reason. Comparision of 1988

earnings performance to that of 1987 is somewhat distorted as a result. If current asset sales trends continue, the change in the nature of bank earnings may be expected to become even more pronounced, with even greater dependency on fee income as a source of earnings. A detailed discussion of accounting standards governing fee income may be found in "Accounting Issues Relating to Asset Securitization".

Specialization/ Market Penetration/ Diversification

Securitization allows for substantial gains in these areas. Picture the institution which has made a substantial investment in both developing a staff expertise in lending of a particular type- e.g., credit cards, leveraged buy-outs - as well as the systems requisite for supporting that staff. While the advent of interstate banking opens new markets, a bank's ability to utilize its expertise is constrained by capital growth, funding capabilities, and concern regarding concentrated exposure in that given area. The ability to originate and then sell assets may afford such an institution an ability to access a broader customer base,a self-funding mechanism for any newly-generated credits, allow it to achieve economies of scale in a given area, and yet not experience an excessive concentration in that area. In fact, the proceeds from the sale of those assets might be employed to purchase asset-backed securities from another party having expertise in some other area to which this institution has limited access.

Simultaneously, the benefits of geographic diversification are accruing to both the originator and potentially the party investing in the asset-backed securities. Dependency on local economies and their cycles may, then, be lessened in the securitization process; when local demand falls off, an institution may either (a), originate assets in other markets where a demand for its specialty continues,and then securitize those credits, or (b), invest funds which have been freed by slackened local demand in asset-backed securities originated in other geographic regions.

THE MECHANICS OF SECURITIZATION

The first step in securitization is to identify a pool of similar loans targeted for sale. The pool must be relatively homogenous with respect to credit, maturity, and interest rate risks to facilitate actuarial analysis of the risks associated with those assets, as well as define some payment pattern associated with those assets. Pooling of loans with no apparent elements of commonality would be cost-prohibitive; the purchaser of the security supported by those assets would have to analyze each and every underlying credit in that instance in order to determine the risk associated with investing in that security. As a result, the majority of assets banks have securitized to date have been mortgages, automobile loans, boat loans and credit card receivables. Most commercial and industrial loans currently booked by banks have not been targeted for securitization largely because they currently lack elements of homogeneity or commonality. Further, losses associated with a package of such credits are generally not "readily estimable", a criteria which must be met in order to qualify for sale treatment pursuant to FASB 77, "Accounting for Sales of Receivables". This is not to say, however, that future developments in this market would not overcome this obstacle and substantially broaden the scope of assets which may be securitized in the future.

While the credit originator may choose to simply issue directly a bond collateralized by the pool of identified assets, this is rarely the approach taken by commercial banks. Direct issuance means proceeds from the sale of securities are subject to reserve requirements, capital ratios must be maintained, and the bank's credit rating is assigned to the securities. (An exception to the latter is the mortgage-backed bond, where the rating is based solely on the market value of the collateral; as most of these bond issues are substantially overcollateralized, the issue is often A rated while other direct obligations of the originating bank carry a lower rating.) Instead, a separate corporate entity, commonly referred to as a bancruptcy remote vehicle, is generally established. The originator sells the pool of assets to that entity, and that entity uses the proceeds from securities it has issued- backed by those assets- to pay the

originator for those assets.

The issuer of the security in this scenario is an entity unrelated to the originator, and its sole assets are those being securitized. The purchaser of the security is therefore only concerned with the quality of the assets in question - the question of the credit risk of the originator, its continued viability, and overall risk profile is no longer important, assuming the remote vehicle has been clearly established as a legal entity separate from the originator and there is no recourse to the originator. Similarly, the bank wishes to treat this transfer as a sale of assets and remove them from the balance sheet. This can be achieved by creating a separate entity such as a special purpose corporation or trust - rather than a subsidiary - which would not be consolidated by the bank in preparing its financial statements (see consolidation issues discussed in "Accounting Issues Relating to Asset Securitization"). Of equal importance, the originating bank generally enjoys lower funding costsbecause of the higher investment rating afforded the obligation of the separate entity in comparision to those of the originating bank.

The bankruptcy remote vehicle will often have independent directors and officers, and, in some cases, the stock or beneficial interests of these vehicles are entirely owned by unrelated third parties. This is for purposes of establishing separability between the originator and the remote vehicle.

The second step then in the securitization process is to convey- or sell- the pooled assets to a trust or other remote vehicle. Of paramount concern here is that a true sale has taken place - primarily for purposes of regulatory accounting practices (RAP), so as to avoid the previously-discussed regulatory costs, and secondarily, for purposes of generally accepted accounting practices (GAAP) and matters of law- i.e., to insure "insulation" between the originator and the issuer.

In general, RAP does not allow for removal of assets from the balance sheet when any direct recourse provisions are associated with the transaction. At the same time, however, security purchasers do not wish to take on all the aspects of credit risk associated with the assets underlying the security issue. The

industry's answer has been to sell the pooled assets to the issuing trust or conduit with no provisions for direct recourse to the originator, and instead build "enhancements" into the security package, mechanisms intended to reduce the degree of credit risk taken on by the security purchasers. (The most common forms of enhancement are discussed later in this document.)

It is important to note at this juncture that while considerable care may be exercised to establish a remote vehicle and convey assets to that vehicle pursuant to sale standards of both GAAP and RAP, the true separateness of that entity is subject to discussion. The lending practices and standards of the originator determine the quality of the assets owned by the trust, and purchasers of asset-backed securities will look to the name of the originator in assessing the risks of purchasing an asset-backed security. In Appendix III, discussing the applicability of the securities investment limitations of Section 5136 of the Revised Statutes to asset-backed securities, an interpretation issued by the Comptroller of the Currency discusses this issue. While the terms of the securities addressed in the interpretation contain limited recourse provisions, the language of the letter notes that the conclusion reached relied substantively on the fact that investors rely heavily on the underwriting standards of the originator.

To date, no bankruptcy court has yet been required to review and rule on the true separateness of the remote vehicle from the originator. Along these same lines, the Securities Exchange Commission is currently considering imposing a requirement that these "remote" vehicles, under certain circumstances, be consolidated by the originator in the course of preparation of the latter's financial statements. Any ruling in this regard might be expected to have a substantial impact; consolidation would mean securitization no longer allowing for avoidance of regulatory capital and reserve requirements, thereby eliminating its cost advantages for banks.

PAY-THROUGH VS. PASS-THROUGH CERTIFICATES

In general, asset-backed securities fall into one of two catagories: "pass-through" or "pay through". The type issued is generally a function of the

underlying asset being securitized, and who the direct obligor of the security is - i.e., direct issuance by originator or via a remote vehicle -is partially a function of which type of security is to be issued.

The fundamental difference between a pay-through and a pass-through is the legal ownership of the underlying assets. In a pass-through structure, the securities issued represent a pro rata undivided ownership interest in the underlying assets- an equity interest in the underlying assets of the trust. In contrast, a pay-through is the issuer's liability, with the cash flows from the securitized assets providing the means for debt servicing. In a pass-through structure, all principal and interest received is "passed through" to investors as payments on the underlying assets is received. As a consequence, any prepayment on the underlying asset must be passed on to security holders, necessarily affecting the principal balance and thereby the yield to certificate holders. Pass-through certificates are generally associated with grantor trusts, a nontaxable entity so long as the trust is "passive" in nature", i.e., there are little or no alterations of cash flows- the purchased assets must be self liquidating, with the trustee (a third-party bank appointed to safeguard the certificate holders' interests) passing on cash proceeds received on a regular basis to the certificate holders. IRS restrictions also require that, in order to avoid taxation and with limited exceptions, a grantor trust can have only a single class of ownership certificates.

Pay-through certificates and the trust/ special purpose vehicle structures associated with them circumvent the cash flow restrictions associated with grantor trusts. In the case of pay-throughs, debt instruments are issued by the conduit with the cash flows from the receivables constituting the source of debt servicing. Unlike a grantor trust, however, cash flows on the receivables need not be immediately passed on: there can be a mismatch between inflows from assets and outflows for debt servicing. Multiple tranches of varying maturity and yield securities can be issued (although usually not except in cases of long-term assets such as mortgages), and the single class ownership restriction associated with grantor trusts can be avoided.

Pay-throughs are most commonly associated with

collateralized mortgage obligations. While initially appearing like the preferrable structure to use in the securitization process, pay throughs are in fact less common as they create additional concerns because of their legal and structural differences. Pay-throughs usually give rise to reinvestment risk (discussed elsewhere in this document), collateral sale restrictions, and stated maturity determination concerns.

THE PACKAGING/ SALE PROCESS

Having identified a need or desire to securitize a particular pool of assets, the originator commences the process by retaining an investment banking firm/ underwriter, and the latter in turn works closely with a credit rating agency if the ultimate security is to be publicly offered. In the case of a private placement, the investment bank simply acts to find a buyer for the securities; in the case of public offerings, the underwriter actually purchases the securities at the time of initial issuance and then resells them. When issues are particularly successful,the securities may appear on the books of the underwriter for only one day.

As previously noted, the rating sought for the issue is generally higher than that accorded direct obligations of the loan originator when the latter are U.S. banks. In these cases, the investment bank works closely with the rating agency so as to structure the transaction in such a fashion as to insure a higher rating. The first step taken under such circumstances is to establish a bancruptcy-remote vehicle of the appropriate type to insulate the transaction from the risk profile of the originator. Both the selling bank and the investor have an interest in ensuring that the security issuer be a distinctly separate entity: the originator, so that it need not consolidate that entity in preparing its financial statements and in order to avoid recourse, and the security purchaser, so that, in the event of the originator declaring bankruptcy or, in the case of banks, going into receivership, the assets backing the security will not be included in the bankruptcy proceedings and the transaction may liquidate with minimal or no disruption.

In determining what steps need be taken to obtain

a targeted rating and thereby minimize funding costs , the credit agency will conduct a comprehensive review of not only the assets subject to securitization, but an overall review of the originator as well. While the rating agency will review the historic default rate, geographic distribution, methodology used in selection of assets for the pool and all other aspects of the pool of assets itself, a review of credit origination and administration practices (e.g., charge-off and renewal policies), audit procedures and accounting systems, as well as other aspects of the originator are subject to review. (Review of the procedures and practices of the originator is a tacit recognition that the "remoteness" of the special purpose vehicle is arguable, with the quality and performance of assets supporting the securities clearly a function of the originator's standards and practices.) In short, the credit agency performs its own form of due diligence before determining what "enhancement" mechanisms need be added to the pool of assets in order to attain the desired rating.

In most instances, the originator is also the servicer, and the rating agency will therefore review aspects of the originator relating to its servicing capabilities. The servicer, in exchange for a fixed percentage fee, agrees to service and administer the assets securitized in a manner consistent with policies and procedures used in accomodating its own assets. The servicer will oversee collection of interest and principal, generally maintaining those funds in a separate account and required by the terms of the agreement to remit funds to the trustee periodically within a designated timeframe. The servicer enjoys the float associated with those funds between periodic remittances, further increasing the value associated with this aspect of the transaction. If, however, the servicer is not rated as higly as the securities issued, the rating agency will generally require funds to be remitted by the servicer to the trustee within 48 hours of receipt so as to minimize exposure of the asset proceeds to the credit risk of the servicer. If the servicer is rated more than one catagory below the rating of the security, the rating agency will generally also require the servicer to obtain a surety bond, letter of credit, or other credit support.

The rating agency will review the systems capacity, management and policies and procedures

associated with servicing the assets in question. Additionally, however, it will require that the servicer be adequately insured against errors and omissions, generally in an amount covering approximately 5 percent of outstanding obligations, and review the compensation afforded the servicer as part of the transaction. The servicing fee should be in line with industry standards to ensure transferability of servicing rights in the event that the initially-designated servicer need be replaced during the life of the securities. Often times, servicing rights can be transferred at a premium as this is, more often than not, a lucrative aspect of the business. Moody's has noted that the profit associated with servicing is directly related to the quality of the assets- i.e., the lesser the quality, the greater the expenditures necessary to collect on those assets.[2]

As previously mentioned, the servicer is required to remit all funds collected to the trustee, a third party bank retained for a flat fee to act in a fiduciary capacity, with preservation of investor rights being its primary concern. The responsibilites of the trustee will vary from issue to issue and is delineated in a separate agreement. Generally, the trustee has no responsibility to make an initial or periodic examination of the receivables in the trust, and may often confine its activities to overseeing disbursement of cash inflows in a manner consistent with the terms of the indenture, and compliance by other parties to the issue with appropriate covenants. Assuming no problems develop during the life of the security issue, the trustee's primary responsibilities will be to maintain a segregated account into which collections are deposited, perhaps exercise some investment responsibilities (i.e., investing those funds on an overnight basis), and make disbursements to appropriate parties in accordance with terms of the agreements. This includes payment of the servicer, whose fee is generally subordinated to the certificate holders' interest.

At first glance, the role of the trustee may appear to be rather benign, and one that carries little risk. Compensation for this role is nominal, at best, and if one were to believe price reflected risk, this conclusion would be reinforced. However,if problems were to develop with the transaction, the trustee is endowed with a number of responsibilities which can

become particularly important. First, the trustee is provided, prior to issuance of the securities, an identification list of assets by the originator, as well as a legal opinion of counsel representing that the trustee or certificate holders have a first perfected security interest in and to the assets supporting the security issue, as well as the documentation evidencing such ownership. It receives periodic financial statements from the originator/ servicer, delineating amounts collected, amounts charged off, collateral value, etc.. It must review that information to ensure that underlying assets are performing in such a manner as to permit adequate cash flow to service the securities, as well as forward that information on to certificate holders. The trustee also oversees performance of the other parties to the security issue (e.g., the enhancer(s)), and has responsibility for declaring the issue in default if necessary, as well as replacing the servicer if it fails to perform in accordance with required terms. In fact, then, the trustee can actually have substantial responsibility as well as liability associated with its role of acting on behalf of investors.

ENHANCEMENTS

Since the purchaser of the securities generally doesn't get to examine the underlying assets, the foremost risk associated with investing in asset-backed securities is credit risk, or default on the underlying asset. So as to minimize that risk, the rating agency will, in the course of reviewing the security issue in question, require that some terms be attached to the security which insulate the purchaser from a portion or all of the credit risk indigenous to the assets supporting the security. These mechanisms are customarily referred to as "enhancements", the type(s) and amount of which are generally dictated by the quality of the underlying assets and nature of security being issued. The rating agency will create various "disaster" scenarios (e.g., increase historic losses threefold) based on the historic profile of the underlying assets, and then dictate the amount of enhancement, or protection, necessary for any given security to be issued at the desired rating. The highest rated asset-backed securities generally have enhancements at levels several times the highest historical default rates associated with the underlying

assets. (For example, a credit card portfolio may have a historical loss rate of 3 percent, and the enhancements would cover a 12 percent loss rate.)

Credit enhancement may be provided by a third party or the originator, and in many instances, more than one type of enhancement is associated with a given security. The simplest means of enhancement is building in a recourse provision, or extending a guarantee, so that all or a percentage of losses are absorbed directly by the originator/issuer rather than the investor. However, this form of enhancement is only found when the originator is not seeking sales treatment and/or improvement in ratings. As previously discussed, recourse means retention of the asset on the balance sheet, thereby not escaping regulatory costs, and the rating agencies will not rate an issue higher than that of the associated enhancer. Because of these two factors, guarantees or recourse provisions may be found in asset-backed securities purchased by banks, but rarely in cases where a U.S. bank is the originator. This is quite common in asset-backed securities issued by GMAC; a number of its issues provide for recourse to GMAC for losses of up to 5 percent, more than five times the historical loss rate experienced by this finance company.

Surety bonds, or pool insurance, is another form of enhancement, and is no more than an insurance company's guarantee to reimburse investors for losses. This can be a relatively expensive form of enhancement, as it customarily covers the entire pool of assets. Because of this, it is not commonly used. However, a recent exception to this is the Chemical Bank Grantor Trust 1988-B issue supported by a surety bond guaranteeing reimbursement for losses only up to a specified percentage of the initial pool balance.[3]

The most common enhancement in a pass-through structure where the underlying assets are not mortgages and were originated by a bank is an irrevocable letter of credit issued by a third party. In the course of "packaging" the assets for sale, the underwriter and originator will obtain a letter of credit ("L/C") from an unaffiliated bank- generally a foreign one as a AAA rating on the securities is desired- where the trust is named as beneficiary. The letter of credit may only enhance liquidity, or it may be a form of unconditional guarantee of credit risk. Prior to enhancing the

issue, the bank issuing the L/C will perform its own due diligence review of the originator as well as the securitization package, in order to determine the likelihood of a drawdown under the L/C by the trustee on behalf of certificate holders. Again, the letter of credit is generally issued for an amount which is a multiple of historic losses. In exchange, the bank issuing the L/C is paid a fee, generally over the life of the security issue. When L/Cs are used to reduce credit risk to the investor, it is nearly always in tandem with some other form of enhancement, with that other enhancement first absorbing credit losses (usually at a multiple of historic rates) before the L/C would be drawn on to compensate for losses.

Another common form of enhancement for bank-originated asset-backed securities is a spread, or incremental reserve, account. This is most often associated with automobile and credit card backed issues, as it requires a sufficiently large difference, or spread, between the interest rate attached to the security and the rate of return on the underlying asset. A spread account is, in essence, a reserve to cover losses and a mechanism whereby the originator absorbs initial credit risk without having a recourse provision built into the issue which would prohibit sale treatment. The spread account's balance accrues over a period of time as cash flows in from the underlying assets. The originator/ servicer passes on all funds collected, and the spread account is then accrued from the difference between interest earned on the assets and that paid out to investors minus fees paid to the servicer and any other enhancers (e.g., L/C issuing bank). Since this account balance builds with initial cash flows, it is important to note that early in the life of the security, there may be no or inadequate balances to cover losses being sustained. Because of this, the originator will often advance funds to the spread account at the time of issuance so that there is some balance available to cover initial losses. Balances in the spread account, if any, revert to the originator at the time of expiration of the security issue. This latter feature provides an incentive for the originator/ issuer to collect on delinquent or defaulted assets, thereby increasing the amount of income it will realize as a result of the securitization process.

Overcollateralization is another common means of

enhancement, and is almost always used to enhance mortgage-backed securities. As the term implies, the value of assets collateralizing the debt issue exceeds the face value of the notes. Terms of the issue generally require overcollateralization throughout the entire life of the issue, i.e., if collateral value declines below some predetermined level due to defaults, the originator is required to augment the collateral pool. Overcollateralization is not often found as an enhancement to bank-originated issues- other than collateralized mortgage obligations - where the originator is seeking to remove the assets from the balance sheet.

Finally, a security issue may be "internally enhanced" via structure, as in the case of senior/ subordinate pass-through securities. Two classes, or tranches, of securities are issued, with the senior class having preferential rights to payments stemming from the underlying asset pool. The junior, or subordinate certificate holder(s) will absorb all credit risk, or risk of default. Generally, the senior security is sold with an investment grade rating, and the junior class either held by the originator or privately placed. If the latter is the case, pricing may be expected to compensate for the additional risks inherent in the junior class. When the junior portion is retained by the originator, the entire issue - senior and junior- remains on the books as risk is effectively retained under this scenario, and the proceeds from the sale of the senior issue are recorded as borrowings.

Often times, and in particular when the underlying assets are originated by a bank, a security issue is supported by more than one type of enhancement. Also, regardless of the enhancement(s) associated with the issue, initial credit losses are commonly borne by the originator. For example, credit card-backed securities commonly have both a spread account and a letter of credit supporting them, with the spread account constituting the first line of defense for losses: the L/C issuer will only begin absorbing losses after the originator, via the spread account, has absorbed losses via that account being fully exhausted (recall that the balance of the spread account accrues from the interest differential between that earned on the underlying asset and that paid on the security, with the ending account balance, if any, reverting back to the

originator).

Finally, letters of credit and surety bonds are commonly referred to as external enhancements since they are provided by a third party. However, if the originator agrees to reimburse the "external" enhancing party for any payments it might have to render pursuant to its guarantee, sale treatment cannot be afforded the transaction as such an arrangement is tantamount to recourse to the originator.

As previously mentioned, securities supported by third-party enhancements will not be rated by the agencies higher than the direct obligations of the enhancer. Similarly, the security may be downgraded by the rating agencies if direct obligations of the enhancer are downgraded. Finally, the amount of enhancement required to attain a given rating is generally dependent on the profile of the underlying assets and the familiarity of the markets with asset-backed security issues put out by a particular originator. The costs attendant with obtaining the necessary enhancement may determine whether securitization is a cost-effecient process. In general, an institution rated less than single-A will find it a cheaper means of funding. "For example, Bank of America and First Republic of Dallas have securitized their credit card portfolios and thereby saved about 150 basis points in direct financing cost, relative to issuing notes of their own with an equivalent maturity."[4]

WHO PURCHASES SECURITIZED ASSETS AND WHY

The largest purchasers to date of asset-backed securities have been pension funds and insurance companies, and to a lesser degree, commercial banks. The most compelling reason has been the rate of return on these assets; priced in relation to the Treasury curve, their spread over that curve ranged from 58 to 125 basis points during 1988; in comparision, spreads on AA rated corporate bonds of comparable maturities ranged from 0 to 35 basis points above the treasury curve during the same period.[5] While enjoying improved returns, the investor has not taken on all aspects of credit risk: these are borne by either third-party enhancers and/or the originator, and are absorbed by the investor only when actual loss experience is higher

than the "catastrophic" proportions envisioned by the rating agencies.

Aside from return, purchasers of these issues are generally motivated by the same reasons previously mentioned as grounds for sale of assets -e.g., management of interest rate risk and portfolio/ geographic diversification. Pension funds and insurance funds have gladly bought mortgage-backed securities with longer maturities, enjoying a greater return than that associated with Treasury investments of like maturity and in many cases, improving maturity matches between assets and liabilities. As for credit risk, what exposure the security purchaser does have may be to segments, industries, or individuals to which or whom it might not customarily lend directly without first making substantial overhead investments. The diversification described "provides special advantages to regional banks and those in unit-banking states who find it difficult to diversify through their own lending base, particularly where they serve "depressed, industry-specific, geographic areas."[6]

RISKS OF INVESTING IN SECURITIZED CREDITS

PREPAYMENT RISK

While the purchaser of asset-backed securities does take on some degree of credit risk, the most frequently discussed risk associated with investing in these instruments is that of prepayment. Assume a falling interest rate scenario: a number of borrowers may choose to prepay or refinance their obligations, in turn resulting in premature retirement of securities backed by those assets. The investor has, then, (a) not realized the yield anticipated, and (b), been placed in the position of investing the proceeds at lower rates due to downward rate movements. The degree of prepayment risk associated with any given asset-backed security is a function of the underlying asset and, secondarily, of any terms inherent in the structure of the issue designed to mitigate this risk. The longer the maturity of the underlying asset, the greater the prepayment risk. As such, mortgage-backed

securities have been notorious in this respect; as interest rates fall, mortgage loans are often repaid either via refinancing or sale of the underlying home extinguishing the debt. However, the development of collateralized mortgage obligations is effectively a result of efforts made to minimize this risk. A series of securities with varying projected maturities is issued, with all of the series, or tranches, supported by one pool of underlying assets. The tranche with the shortest maturity is first to be serviced by the cash flows from the underlying mortgages, and no successive tranche will receive principal payments until the preceding tranche has been fully retired. Those investors seeking to minimize exposure to prepayment risk will seek to invest in the tranche of shortest maturity.

Prepayment risk associated with receivables-backed securities is considerably less than that of mortgage-backed securities, but still deserving of review. In the case of auto loans, prepayment risk is relatively minimal due to the short life of these loans as well as fixed repayment schedules. Interest rates would have to demonstrate substantial volatility to entice the obligor into refinancing, partly due to the fact that rates on used car loans can be as much as 2.5 percent higher than rates on new car loans.

In theory, credit card receivables might be expected to have substantial prepayment risk as each credit card account does not have a fixed repayment schedule, but rather a minimum payment due which only sets a "floor" - the obligor may pay any amount above that. However, statistical data has shown that cardholder payment rates tend to be stable for a given issuer, but vary substantially from issuer to issuer. While the payment rate on any one account may vary considerably, the payment rate on a pool of accounts generated by the same originator tends to be stable.[7]

It should be noted that prepayment risk is an issue given due consideration by the rating agencies in reviewing a security issue and constructing "catastrophe" scenarios. Further, mechanisms to minimize or eliminate this risk have been evolving. For instance, terms of an issue have included provisions of what might be called an additional enhancement to specifically address this risk : a borrowing facility at a third party bank is available

for drawdown if prepayments fall short of a rate specified in the terms of the issue. If they exceed a fixed rate, they are reinvested in a guaranteed investment contract.

REINVESTMENT RISK

This risk is much more prevalent in pay-through structures, stemming from payments on the securities occuring less frequently, or at different intervals, than payments being received on the underlying asset. Reinvestment risk actually has two aspects to it. First, there is the concern that the underlying assets are prepaid and proceeds then reinvested at a rate lower than that of the security (often called negative carry), potentially causing ultimate default on the issue. Second, there is concern that funds are received, then reinvested, and either credit risk or maturity mismatch causes the reinvested funds to be unavailable for distribution to security holders per terms of the issue.

There are generally restrictions and/or reserve features built into issues to mitigate reinvestment risk. First, terms of an issue generally include a restriction mitigating credit risk only permitting the trustee to invest in assets rated equally high or higher tha the rating of the asset-backed security issue itself; qualified investments, generally of a low risk profile, are onften specifically delineated. The other most common feature designed to test for reinvestment risk is an interperiod call provision, requiring that the trustee conduct a test each month, showing that cash flow received to date, plus assumed cash flows expected before the next payment date plus reinvestment income earned exceeds debt servicing needs. Should such a calculation indicate negative carry for a number of successive months, the trustee may be required to call the securities prematurely.

Along these same lines, the question arises of liability of the servicer/ trustee for reinvesting funds. While they may conduct the activity within any constraints delineated in the trustee or servicing agreement, legal liability seems present if some aspect of reinvestment causes default or delay in payment to security holders.

Reinvestment risk is generally taken into account in the structuring of a security issue and built into a "catastrophe" test executed by a rating agency, and default on an issue solely because of this risk seems fairly improbable; assumptions made in testing would have to be overstated in order for default to occur, and most tests currently assume reinvestment of proceeds at rates of three to four percent. However, this may become a greater issue as these markets continue to develop and issues are outstanding for complete business cycles.As such, a review should be done to determine what aspects of a particular issue minimize this risk.

RESALEABILITY RISK

Asset-backed securities, like any investment security, are subject to depreciation as interest rates rise. Unlike other investment securities, however, the secondary market for all but government-supported mortgage-backed securities, has little depth at this juncture. Generally, the underwriter of a public issue will agree to attempt to make a market in that security, and to date, a secondary market, albeit one lacking depth, has developed for public issues. Concern as to resaleability becomes even greater in the case of private placements: little is known in this regard, but it can be reasonably assumed that the absence of a rating makes the resaleability of such securities even more difficult than would be the case for a rated issue.

LEGAL RISKS

Securitization has greatly increased the opportunity for legal conflict from that present in traditional methods of lending, as responsibilities that were once entirely within one organization have been transformed to contractual obligations involving a number of parties. However, the legalities associated with securitization remain relatively untested and little case precedent exists to clarify this subject. At the most fundamental level, no bankruptcy court has, to date, had occasion to rule on whether the originator's conveyence to a bankruptcy-remote vehicle of the securitized assets constituted a true sale, or rather, that those assets should be substantively

consolidated with those of the parent. The closest scenario to this currently known of relates to $200 million in credit card-backed notes issued by RepublicBank Delaware and scheduled for maturity in 1992. First Republic Bank Corporation of Dallas was declared insolvent, an event which, under the terms of the issue, accellerated maturity. More important, however, was the fact that the FDIC upheld the structural integrity of the issue and did not attempt to take the assets collateralizing the debt securities.[8]

Parallel legal concerns surround each party to the securitization process: for example, prior to issuance of the securities, the trustee should have been provided a legal opinion stating that the trust and/or certificate holders have a first priority perfected interest in the underlying assets. Similar legal opinions on other aspects of the transaction are obtained prior to issuance of an asset-backed security - an opinion as to the enforceability of the L/C or surety, and an opinion as to no commingling of funds by the trustee or servicer in the process of collection , so that if that party were to enter bankruptcy, those funds will continue to flow through to security purchasers. However, the validity of these opinions are only subject to testing when something goes wrong.

The asset-backed securities markets are now in their infancy stages, and as such, a number of legal issues surrounding these have not been tested. These issues may be expected to surface as security issues "live through" complete business cycles and current security issues move toward maturity.

OTHER RISKS

In the course of explaining the mechanics of the securitization process, considerable discourse was given to the scope of review conducted by the underwriter, rating agency, and enhancer. This should not be construed as alleviating a bank from its responsibilities to thoroughly review the risks associated with investing in any security. Although unable to review the underlying assets, the investor should perform a thorough review of each party to the transaction, as well as the terms of the issue itself, to determine what risks are ultimately absorbed by the

investor. Such a review should not be contained to a one-time analysis; an ongoing review over the life of the issue, as would be the case with any extension of credit, is requisite. The assignment of an investment-grade rating by a credit agency at the time of issuance of the security should not be the sole criteria for investment.

A well-managed organization should have policies in place which would prohibit or minimize any potential concentration developing from investing in these securities - e.g., overexposure to a single type of pool, such as credit-card backed securities - as well as limits to credit exposure. In addition to direct credit exposure to the originator and its underwriting standards, limits should be place with respect to exposure to other parties, e.g., servicers and/ or trustees. Unfortunately, diversifying exposure to enhancers appears somewhat difficult at this juncture- the vast majority of bank-originated, asset-backed security issues are enhanced by L/Cs issued by the same one or two foreign banks.

The question of limits raises the issue of the applicability of Section 5136 of the Revised Statutes to asset-backed securities. An appendix describing limited interpretations made to date in this regard can be found at the end of this document.

RISKS ASSOCIATED WITH ISSUING ASSET-BACKED SECURITIES

CHERRY PICKING VS. LEMON SELLING

The quality of assets remaining on the books of a bank engaging in securitization has been the subject of considerable concern and debate. In general, two extreme theories have been advanced - one argueing that banks have an incentive to sell only their best assets ("cherry picking"), and the other advocating that in fact, incentives drive a bank to "unload" its high risk ("lemon selling") assets in the market.

Those advocating cherry picking generally espouse that two cost factors entice a bank to sell its best assets, thereby leaving the FDIC insuring a riskier asset structure. First, the better the quality of the

assets packaged for sale, the less enhancement that is needed to realize an improved return. Second, as insurance premiums are not currently assessed based on risk profile, it is more efficient, from the point of view of regulatory costs, to have capital and deposits fund riskier assets. Finally, some argue that the market will only permit sale of high quality assets - any party "unloading" low- quality assets would not be permitted re-entry into the markets via no institutional investor again purchasing that originator's paper.

The last argument can be discounted based on experience to date: junk bonds and LBO credits have been securitized, and one is led to believe that a market exists for risk profiles of all levels, so long as one is willing to pay the price of enhancing such an issue and/or potentially selling the securities at a discount. As for cherry-picking, this has also been witnessed first-hand in the market place, most commonly when an originator is first "breaking into" the asset-backed securities market and investors implicitly demand a more selective, higher quality asset base behind the security.

Proponents of the lemon selling theory espouse that the credits most readily securitized are those of smaller borrowers as they are most easily standardized, and the profile on these borrowers tends to be of a higher risk. Large, higher quality borrowers access the commercial paper markets for funding, only going to banks for credit of a more complex nature which cannot, by its very nature, be bundled for sale. Finally, advocates of this theory note that as a bank begins originating credit knowing that it will be immediately packaged for resale - i.e., the credit risk is passed on to other parties - there will be a relaxation of credit origination standards and the "pipeline" will fill with lower quality assets. These are, in turn, the next assets to be securitized.

Several arguments may be advanced against this theory so far as an originator being able to "dupe" investors into believing they are buying a security supported by higher-quality assets than is actually the case. First, several parties are reviewing credit origination standards as part of the securitization process - the rating agency, the underwriter, and the enhancer, making it difficult to "unload" into the

market a package of poor quality assets without being detected. Assuming the aforementioned does not hold true and a bank succeeds in "unloading lemons" in the market place, concern over its reputation and the potential reaction in the marketplace to such an action should provide sufficient deterrance. Finally, SEC disclosure requirements provide that all material facts relating to the security be disclosed: failure to do so or omission of material facts can result in personal liabilities under the anti-fraud provisions of applicable statutes.

The argument that credit standards fall as originators know they will not retain credit risk but rather pass it on in the securitization process may have some merit. To date, a number of institutions active in the securitization markets have designed a means for dealing with this. Lending officers are not advised that credits they have originated or will originate have been or will be sold. Those assets which are sold are "flagged" in a limited-access field of the bank's computer systems, and no designation is in the credit file itself identifying it as having been sold. Further, line officers are often compensated on the basis of the performance of their portfolios, where the latter would include assets sold. Jointly, these two facts would seem to deter the pipeline from filling with lesser-quality assets.

Regardless of the position one may take on this issue, experience to date has shown that companies have knowingly and willingly worked both sides of the fence - selected carefully higher quality assets for securitization for initial penetration of the markets, and knowingly sold off lower quality assets (e.g., nonperforming assets), without apparent disguise and willingly incurring the higher costs of making such an issue marketable. With this in mind, the quality of asset securitized should be compared with those remaining on the books of the bank and a determination made as to whether one or both practices are being engaged in. To the extent that such packages are being sold as a risk management technique, prudential policies and standards govern the practice, and the remaining balance sheet profile is not compromised, concern is mitigated. To the extent possible, the "blind" identification of sold assets should be encouraged as it appears to be a prudential means of ensuring against a relaxation of credit standards.

MORAL RECOURSE

The prospectus behind asset-backed securities originated by banks and sold via remote vehicles almost always states, in bold letters, that the offering is not an obligation of the bank and is not insured by the FDIC. In the case of private placements constituting a sale without recourse, one may presume that the same representation is made: i.e., the securities representing an interest in the pool of assets sold by the originator is not an obligation of the originating bank.

The question arises, however, as to whether the originator would, in fact, repurchase the issue if something went awry. While not a legal obligation under the above scenario, an originator might be compelled to protect its name in the marketplace and its access to funding markets by voluntarily repurchasing the issue. Originators questioned on this subject emphatically responded "no", but until an issue actually collapses, the industry response is hard to predict. Should such a decision be made, the result may well have discount window implications. The economics of the securitization process dictate that these assets be sold in large lots: a minimum of $100 million seems to be the prevailing standard, although information on private placements is limited. The ability of the originator to fund such a repurchase itself is questionable and appears dubious, at best.

Absent extenuating circumstances, if an asset-backed security is repurchased under the auspices of moral recourse, a "rebooking" of all the assets and corresponding liabilities associated with that issue will be required. Clearly, the capital maintenance requirements under such a scenario, particularly in the case of very active users of this market, is substantial.

OTHER RISKS

At this time, banking organizations are beginning, either directly or through affiliates, to underwrite asset-backed securities. Indeed, Citicorp has announced that it expects its Deleware subsidiary bank

will underwrite an anticipated $15 billion in asset-backed securities where the assets are originated by its affiliates. Already, the originating bank is also acting as servicer on most, if not all, issues outstanding. The more functions in the securitization process the bank and/or its affiliates assumes, the greater the potential for conflict of interest and increasing risks associated with securitizing bank assets. As to moral recourse, the pressure to redeem an issue - whether sold with recourse or not - can only be expected to increase if one organization originates, sells, services and underwrites the same issue. Examiners are encouraged to keep this in mind when questioning management on its philosophy and reviewing controls designed to diminish conflicts of interest.

Servicing

As previously discussed, acting as servicer can have substantial benefits. An institution already has a fixed investment in its servicing systems, and achieving economies of scale relating to that investment is in its best interest. However, this may be viewed as a two-edged sword. Substantial fee income can be realized by acting as servicer and most originating banks may be expected to seek to service their own securitized assets. The danger, though, lies in overloading systems capacity, thereby creating enormous out of balance positions, and the "spillover" effect this may have on the asset-backed security itself. The potential exists for an event of default stemming from servicing problems, leading to premature redemption of the asset-backed securities.

The past few years have shown the tremendous problems which can stem from systems breakdowns at banks. Add to this the problem of taxing the system with an increasing volume of assets not even appearing on the balance sheet, and the potential results can be frightening. Examiners should review systems thoroughly, including back-up coverage, and review testing procedures used by servicers prior to issuance of each asset-backed security issue and the additional strain it imposes on existing systems.

Funding Risks

The rating agencies represent that they incorporate into the scope of their review an analysis for excessive reliance on securitization as a funding mechanism. The ability of an institution to function smoothly in the event this funding market is inaccessable, for whatever reason, should be reviewed. What happens to assets "in the pipeline" under this scenario? An institution particularly active in asset sales should be examined with this in mind.

Along the same lines, a review should be made to determine that several security issues do not mature simultaneously, or in close time proximity to one another. This is particularly important in the case of revolving credit receivables since, as the security undergoes principal reduction, the receivables return to the originator's balance sheet over a fairly short period of time, a phenomana not associated with other asset-backed securities. (See Appendix I for a discussion of this in greater detail.)

CONCLUSION

The "new" securitization occurring in today's markets does not appear to be a passing phenomenon but rather a natural reaction to prevailing incentives described earlier. So long as the benefits and incentives described in this document continue, the evolution of the securitization process may be expected to continue. The nature of that expansion would appear to be a function of : (1), the creativity of investment banking firms; (2), any legislative and/or regulatory constraints which might be put in place; (3), any change in legal assumptions due to judicial findings; (4), the extent to which pools, or elements of commonality, can be identified in any given bank's asset structure, and (5), change in fundamental financial assumptions (e.g., recessionary impact).

While the impact of securitization currently appears to be largely confined to the multinational and super-regional banks, a "trickle down" effect should be anticipated. If not issuing asset-backed securities, smaller banks may be expected to at least invest in them to compensate for slack in local loan demand and

provide portfolio diversification. Indeed, the Farmer Mac program augurs well for the small agricultural bank heretofore unable to accomodate its local community and still diversify itself.

While associated with inherent efficiencies, securitization may also present potential problems for individual institutions. The most readily identifiable at this juncture is that related to servicing. The servicing of assets by the same institution which originates them appears to be a logical conclusion. But at the same time, the potential for problems in the absence of adequate systems is enormous, and any given institution has an incentive to continue to engage in servicing without making additional capital expenditures. The potential cost of a poor management decision in this regard cannot be overemphasized, and systems capacity should be reviewed thoroughly.

While the servicing of assets by the originator/ issuer may be an acceptable practice, the more roles in the securitization process assumed by one institution, the greater the degree of risk. Multiple parties currently provide checks and balances which serve to minimize risk. Replace the independent underwriter with the originator or its affiliate and the risk associated with the process appears to rise. It would seem to leave that institution open to greater potential liability, real as well as perceived - moral recourse. The fewer the number of parties to the process, the clearer the line of legal liability. The latter will, unfortunately, only be identifiable after substantial litigation has surrounded this process.

Regulatory bodies are currently posed with the question of whether to encourage or discourage securitization - making no policy statement is a tacit encouragement to let the practice continue to evolve. It would appear that the benefits attendant to the process are substantial, and that the practice should be encouraged so long as each institution involved formulates prudential policies and controls to minimize associated risks. Examiners, then, should exercise due diligence in assuring that those banks which are party to the process have identified risks associated with the process and have taken prudential steps to minimize exposure to those risks.

APPENDIX I

CREDIT CARD BACKED SECURITIES

The first credit-card backed security issue was a $50 million private placement for Bank One, underwritten by Salomon Brothers, in March, 1986. They are commonly referred to as "cards", an acronym devised by Solomon Brothers for Certificates for Amortizing Revolving Debts.

Cards are generally issued by bankruptcy-remote vehicles, with the originating bank conveying certain designated accounts to that entity. All balances generated by those accounts during the life of the security issue are the perfected interest of the trust.

The characteristics of the security are dictated by that of the underlying asset. Credit cards generally pay down rapidly, having an average life of six to nine months. Balances fluctuate daily, as some accounts pay down and others increase, but historically, the balances of the overall portfolio of accounts increases - charges on accounts tend to exceed repayments. Yields are customarily high relative to the coupon rate on the securities issue, making a spread account a viable means of enhancement. However, the reader should note that, in general, about one-third of all credit card users are "convenience" users, or people who repay charges on their accounts immediately and incur no finance charges. This will reduce the average yield on the portfolio from that being charged by the bank; for example, if its rate on credit cards is 18 percent, the yield on the portfolio will be lower - perhaps 14 percent - because of the volume of convenience users and the volume of charge-offs experienced.

Keeping the characteristics of the underlying assets in mind, the originator conveys to the trust enough accounts so that their aggregate initial balance exceeds security proceeds. A ten percent excesss seems to be common - e.g., for a $500 million security issue, the originator will convey to the trust enough accounts so that initial principal balances approximate $550 million. Certificates for $500 million are sold to investors, and the seller then takes a certificate for

the excess balance. This seller certificate will absorb the daily fluctuations in accounts receivable balances during the life of the related security issue.

A provision for a"floor" is generally contained in the terms of the security issue to assure adequate collateralization of investors. The floor will require the originator to augment the pool of receivable with additional accounts if the balances drop below a specified balance. In our example, principal balances may be permitted to drop to $540 million, but no lower; the originator would then have to convey to the trust additional accounts with outstanding principal balances of $10 million.

Because of the short life of the underlying balances, credit card backed securities build in an interest-only period of anywhere from 18 to 36 months, followed by a principal reduction period of six to twelve months. Finance charges from the designated accounts provide the cash flow for payment of interest during the interest only period, and also fund accrual of the spread fund during the early term of the issue. These securities are generally also enhanced with a letter of credit, the amount of which is usually 3 to 5 times the historical loss rate experienced by the originator on its credit card portfolio.

It is important to note that, unlike other asset-backed securities, credit card securities return to the originator's books. The originator will initially record a certificate interest in the trust which fluctuates daily during the interest-only period, but usually within reasonable parameters. However, as principal reductions are made on the securities outstanding, its interest in the trust increases until expiration of the security issue. At that juncture, its interest in the trust is replaced on its books with the receivables which had initially been conveyed to the trust. Within a short period of time then, the balance sheet of the originator may increase substantially, requiring adequate capital coverage under risk capital guidelines.

APPENDIX II

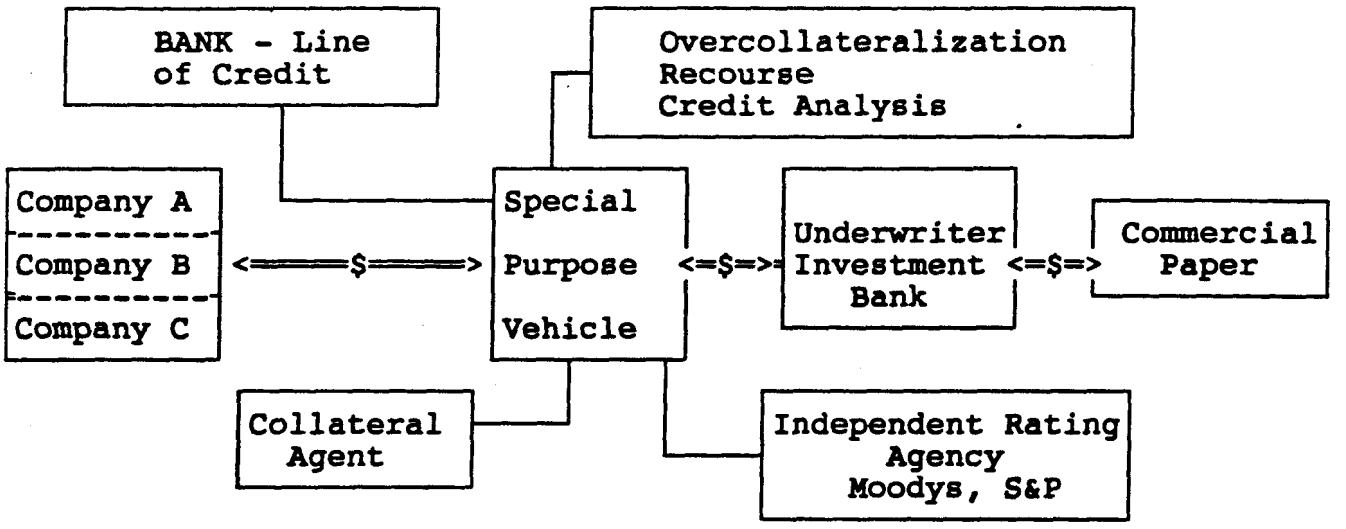
COMMERCIAL PAPER PROGRAMS

There are certain peculiarities that separate asset backed commercial paper programs from other methods of securitization. The major difference is that more than one type of asset may be included in the receivables pool. As a result, the cash flow from the receivables pool does not necessarily match the payments to investors.

The mechanics of an asset backed commercial paper program are similar to the methods of securitization previously discussed. A bankruptcy remote, "special purpose vehicle" (SPV) is created whose sole purpose is to finance receivables. These receivables are purchased (via a purchase agreement) from various originators who must meet strict credit standards. The receivables may be for any amount but they generally have very short maturities.

In order to finance the purchase of these receivables, the SPV issues commercial paper through an investment banking firm. Because the maturity of the underlying asset pool does not match the maturity structure of the commercial paper, an irrevocable line of credit is obtained from a bank to maintain liquidity. The same bank generally provides ongoing credit analysis as well. An independent collateral agent (a second bank) is established as the issuing and paying agent for the issue.

The following diagram illustrates the structure of an asset backed commercial paper program:



The cash flows in this structure can be viewed as two separate transactions: purchasing assets and financing them. The special purpose vehicle may purchase a limited amount of receivables from various originators for cash. The originator will typically continue to service its own receivables. When payment is made on an account, the interest portion is paid to the SPV on its ownership interest in the receivables pool. The principal portion of the payment is used to buy new receivables . This results in a revolving funding structure similar to that of credit card receivable's "interest only" period. However, asset backed commercial paper programs are usually perpetual.

The receivables are financed by issuing commercial paper. Typically, the special purpose vehicle will retain an investment bank with an established distribution system to underwrite and place the issue. The interest paid on the underlying pool of assets is used to finance payments on the commercial paper.. The maturity structure of the assets, however, does not match that of the commercial paper. Consequently, when the paper matures, it is usually "rolled over" or funded by another issue. In certain circumstances, a maturing issue of commercial

paper cannot immediately be rolled over. In that case, the collateral agent may draw on the irrevocable line of credit in order to maintain liquidity. The line of credit will be paid back when new paper is issued.

To unwind this securitization program, the SPV simply stops reinvesting in receivables. This results in the rapid payoff of the receivables pool.

One of the purposes of securitizing assets is to allow less than investment grade companies to issue investment grade securities. There are several credit enhancers found in asset backed commercial paper programs. They include recourse to the originator, overcollateralization of the issue and stringent monitoring of the originator and the receivables pool. The commercial paper is backed by an irrevocable line of credit from a bank. Independent rating agencies will not rate the commercial paper higher than the rating of the bank providing the line of credit.

Most banks do not sell assets via commercial paper programs because there is recourse to the seller. The originators are usually large corporations since GAAP accounting allows for them to account for the transaction as a sale if losses due to recourse can be reasonably estimated. Banks may, and have , set up asset backed commercial paper programs for their corporate clients, provide the irrevocable line of credit and ongoing credit review for a fee. To date asset pools have included credit cards, equipment leases and trade receivables to name a few. Because different asset types can be included in the receivables pool, this is one of the more attractive methods of securitization.

APPENDIX III

SECTION 5136 OF THE REVISED STATUTES

Section 5136 of the Revised Statutes restricts a bank to investing no more than 10 percent of its capital and surplus in the obligations of one party. To date, the OCC, has published one interpretation dealing with the restrictions of this section and asset-backed securities. A copy of that ruling is attached for the reader's benefit.

The following question is raised: for purposes of this statute, who is deemed to be the "obligor" where an originator may have conveyed to several different trusts assets supporting securities issued by each respective trust? Is each trust viewed as a separate obligor, so that in theory, one could purchase an amount equal to 10 percent of capital of each trust's securities, regardless of the originator/ servicer being the same with each issue?

The attached ruling, dated August 3, 1988, involves a bank having purchased securities issued by two different trusts, where the underlying assets are automobile loans originated by General Motors Acceptance Corporation ("GMAC"). As part of the enhancement of each issue, GMAC provided a 5 percent recourse guaranty.

The conclusion reached by the OCC was that investments in the separate trusts should be treated as investments in securities of "one obligor" for purposes of 5136. While the language of the document notes that the guaranty clearly influenced the conclusion reached, "the most important consideration . . . is the fact that investors, rating services and independent quarantors clearly place a great deal of repayment reliance on the experitise of the originator, packager and servicer of securitized loans."

A request is currently pending before the OCC for an interpretation of an identical situation, but where enhancements to the securities do not include guarantees or recourse provisions. In view of the language of the above, one is lead to believe that the same conclusion will be reached.

The reader should note that the restrictions of Section 5136 do not apply to mortgage - related securities. The Securities and Exchange Act of 1934 defines as a mortgage - related security any security which satisfies all of the following five requirements:

(1)The security must be rated in one of the two highest rating categories by at least one nationally recognized rating organization.

(2)The security must be secured by one or more promissory notes or certificates of interest or participations in such notes.

(3) The security must provide for payments of principal in relation to payments or reasonable projections of payments on the underlying notes or certificates.

(4) The notes or certificates underlying the CMOs must be directly secured by a first lien on a single parcel of real estate, stock allocated to a dwelling unit in a residential cooperative housing corporation, upon which is located a dwelling or mixed residential and commercial structure, or on a residential manufactured home.

(5)The underlying notes or certificates must have been originated by a savings and loan association, savings bank, commercial bank, credit union, insurance company, or similar institution which is supervised and examined by a Federal or State authority or by a mortgagee approved by the Secretary of Housing and Urban Development.

Comptroller of the Currency
Administrator of National Banks

Washington, D.C. 20219

August 3, 1988

This is in response to your letter submitted on behalf of (Bank). Your letter indicates that the Bank was informed by national bank examiners that the Bank's investments in two separate trusts, each of which is backed by vehicle receivables of General Motors Acceptance Corporation (GMAC), which also guarantees the first 5% of losses, should be treated as investments in the securities of one obligor, that is, of GMAC. If the Bank's investments in the individual trusts are considered to be an investment issued or supported by a single obligor, the aggregate amount of the Bank's investment would exceed the investment limit imposed by 12 U.S.C. 24(7). You request confirmation of the Bank's position that investments in each of the trusts should be considered investments in obligations of separate entities.

It has long been a regulatory concern that banks may engage in investment practices that result in undue concentration of the bank's capital in assets payable from a single source or similar sources. This concern is diminished by the statutory limitations on investments in and loans by national banks to a single entity. The policy behind these limitations is driven by the substance of exposure and is not limited by the form of the investment or loan. Accordingly, with the development of new types of investment opportunities, we consider the economic substance of each type of investment in order to ensure that national bank investment in that type of security is consistent with the risk reduction approach imposed by the investment limitation. Generally, when a national bank invests in a pool of loans originated by one entity and packaged for resale by that same entity, it is clear from the circumstances surrounding the transaction that the investor, and indeed the entire market, places substantial reliance on the underwriting and servicing expertise of the originator of the loans as assurance that the ultimate obligors will repay their individual

obligations according to the terms of the loan agreements. A similar type of reliance is placed on the packager whose name on the issue implies an assurance that the underlying receivables have been qualified or screened by the packager. This is usually the case even in situations where the loan originator/packager bears no direct responsibility for ultimate payment of the security or underlying loan obligations. In the instant case, GMAC's guaranty against all foreseeable losses removes any doubt about who the investor is looking to for repayment.

The precedents cited in your letter on behalf of the Bank's position generally involve the OCC's treatment of national bank investments in industrial development bonds (IDBs) issued by municipal agencies. In several letter rulings dating back to 1965, the OCC has concluded that the industrial tenant is the "obligor" on bonds issued by a governmental entity where the tenant's rental payments under a noncancellable lease is the source for repayment of the obligation and the governmental entity bears no responsibility for repayment. This type of transaction is the subject of Interpretive Ruling 12 C.F.R. 7.7570, which provides:

> The 10 percent investment limitation of 12 U.S.C. 24(7) may be applied separately to each security issue of a single issuer of such securities, if the proceeds of each issue are to be used to acquire and lease real estate and related facilities to economically and legally separate industrial tenants and each issue is payable solely from and secured by a first lien on, the revenues to be derived from rental paid by such lessee under net noncancellable leases.

The liberal application of investment limitations accorded this type of security recognizes the economic reality and risk of the security by acknowledging that it is the industrial tenant, and not the issuer of the bonds, that is relied upon to repay the obligation represented by the bonds. In evaluating whether to invest in such securities, the investor assesses the ability of the tenant to make the necessary lease payments and does not rely on the expertise of the issuer of the bond in selecting the tenant. Consequently, the industrial tenant is considered the "economic obligor" on the bond and a national bank must apply the investment or loan limit to its aggregate advances to the industrial tenant.

Such treatment is inappropriate for the securities in the present instance since the Bank cannot (and in this case has not) realistically evaluate the individual obligors in the loan pool. Instead, the Bank relies directly on GMAC's expertise in originating the loans, including the collateral and guaranty

arrangements established by GMAC, as its assurance of repayment. Thus GMAC's performance becomes a significant part of the risk assumed by the Bank when investing in these trusts.

Accordingly, we conclude that investments in separate trusts funded by the receivables of one company and guaranteed by that same company should be treated as investments in the securities of "one obligor" when determining whether a bank has complied with the investment limits of 12 U.S.C. 24 and 12 C.F.R. 1.

While our views on this matter have been influenced by the originator's guaranty of all foreseeable losses, the most important consideration in our evaluation is the fact that investors, rating services and independent guarantors clearly place a great deal of repayment reliance on the expertise of the originator, packager and servicer of securitized loans. Regardless of statutory limitations or the absence of legal limits (see the Secondary Mortgage Market Enhancement Act) prudential name limitations should be applied to the originator, packager and guarantor for all investments in asset backed securities. An institutional investor would be abdicating their responsibilities if they failed to establish name limitations for their investments in securitized loans.

I trust this has been responsive to your inquiry. Please call me at (202) 447-1901 if you have any questions.

Sincerely,

Owen Carney
Director
Investment Securities Division

APPENDIX IV

Mortgage-Backed Instruments

SUMMARY

In a typical pass-through security, a lender originates mortgage loans, pools them, and sells them to a trust or single-purpose entity, which in turn issues securities representing direct ownership to investors. CMOs are multiclass pay-through bonds that are generally based on pools of pass-through securities rather than on pools of mortgage loans. A trustee, who represents the interests of investors in pass-throughs and CMOs, directs the cash payments to the investors. In addition, the trustee acts as a fiduciary to protect and enforce all of the legal rights and interests of investors. Certain other mortgage-backed instruments, commonly referred to as mortgage-backed bonds, typically are issued directly by mortgage loan originators as their own direct liabilities and are collateralized by a pool of mortgage loans. Stripped mortgage-backed securities provide investors with different proportions of the principal and interest cash flows from an underlying pool of assets.

PASS-THROUGH SECURITIES

A mortgage pass-through securities represents an undivided ownership interest in the underlying mortgage loans, that is, the investors have a first priority perfected security ownership interest in the underlying mortgage assets. The cash payments received from the underlying mortgagors in the pool are "passed-through" to the investors in accordance with their pro rata share of the pool. Usually, payments of principal -- including prepayments -- and interest are passed-through to the security holders as soon as the mortgages remit payment. A pass-through security performs like a single mortgage but has the added benefit of an asset pool consisting of a large number of individual loans whose diversification lessens the credit risk to investors. In addition, as active trustee oversees the investors' interests as discussed below.

Issuer

The originator of the mortgage loans establishes a grantor trust which purchases the mortgage loans and issues the pass-through securities to investors. A grantor trust is "passive" in nature in that it conducts no other business and makes no alternation to the cash flows from the mortgages which are passed through to investors. The certificates issued by the trust do not represent debt of the issuer but constitute a sale of the mortgage assets to the certificate holders (investors).

Trustee

The function of the trustee is to act in a fiduciary capacity on behalf of the investors. In addition, the trustee oversees the servicer,1 and, if necessary, assumes its role should the original servicer be unable to fulfill its obligations. The trustee also inspects and holds all mortgage loans documents on behalf of the investors. These documents consist of the original assigned notes, the original recorded deed of trust or mortgage instruments, and assignment of the mortgage in recordable form,2 title insurance policies, any applicable private mortgage insurance policies, and other pertinent documentation.

COLLATERALIZED MORTGAGE OBLIGATIONS3

A CMO is a multiclass pay-through security representing a debt obligation of the issuer and is supported by either whole loans or, more typically, mortgage pass-through securities. The mortgage assets underlying a CMO are often guaranteed by the Federal government or a government-sponsored agency. Whereas in a pass-through cash flows from the underlying mortgage assets are passed unaltered to the holders of the security, in a CMO the cashflows are redirected to several classes (i.e., tranches) of securities with varying coupon rates and maturities. Each class of bonds is retired in sequential order from the class with the shortest maturity to the class with the longest maturity. In other words, all principal payments -- including prepayments -- are directed to the first class of bonds until it is completely retired and then are directed toward the second class and so on. However, each bond

class receives interest payments with the exception of the accrual class, typically known as the Z class. The accrual class bond accrues interest until the preceding classes are retired at which time all interest and principal cash flows are then directed to this final class.

Issuer

CMOs may be issued by single-purpose entities or by an "owner trust." Prior to 1986, CMOs were typically issued by single purpose entities structured to insulate the cash flows of the underlying mortgage assets from the potential insolvency of the originators of those assets. The sole purpose of such a special purpose entity is to issue the mortgage securities. The permissible activities of the entity are restricted to those necessary to complete this limited function.

Strong legal precedent serves to segregate the CMO issuer from the originator of the underlying mortgage assets in the event of the latter's default. Specifically, the sale of the mortgage assets from the originator to the special purpose entity issuing the CMO constitutes an absolute transfer, so that the underlying mortgage assets would not be deemed to be the property of the originator in the event of its bankruptcy.

Since 1986, substantial use has been made of owner trusts to issue CMOs. This structure establishes a trust for the sole purpose of issuing CMOs, performing only those activities permitted under its indenture (the document that establishes the trust and sets out the scope of its operations). Generally, the indenture limits the activities to only those functions necessary to issue CMOs, thus making such trusts very similar to single-purpose entities.

To ensure that the issuer, that is, the single-purpose entity or trust, will remain solvent, the legal documents creating the issuer must clearly state that the issuer's activities are solely limited to the issuance of mortgage securities and any other activities necessary to fulfill that purpose. In addition, the issuer may not incur any additional debt that is not fully subordinated to the CMOs.

While these criteria serve to mitigate a monetary default, it is possible that the issuer can incur a technical default in the even that it does not abide by its covenants. If this were to occur, the trust indenture gives the trustee (discussed below) the ability to retain the trust estate and continue payments to the investors as if no default had occurred. Alternatively, the trustee would be able to sell the underlying mortgage assets, provided there is approval by the investors, and distribute the proceeds of the sale to the investors.

Trustee

As is the case with most debt issues, the CMO issuer appoints an independent trustee to act as a representative of the investors. The basic function of the trustee is to act in a fiduciary capacity on behalf of the investors to ensure timely payment of principal and interest. In this role, the trustee holds the mortgage documents, monitors and controls the flow of funds, and acts as a back-up servicer. In addition, the trustee must consent to perform his obligations regardless of whether compensation is received, and he must agree not to place the issuer into bankruptcy in the event he is not paid. If the trustee's compensation is granted a lien on the underlying mortgage assets, the trustee's position cannot be made senior to that of the investors.

For further information on CMOs refer to the August, 1987 Product Summary entitled, Collateralized Mortgage Obligations (CMOs), prepared by the Federal Reserve Bank of Chicago.

MORTGAGE-BACKED BONDS

Mortgage-backed bonds are general obligations of the issuer, usually a mortgage company or savings and loan association, that are collateralized by mortgage loans. The transactions are financings. The bonds appear as a liability and the mortgage loans that secure these bonds remain as assets on the balance sheet of the issuer. Payments to investors in mortgage-backed bonds are payable out of the general funds of the issuer or, if the issuer defaults, from the mortgage loans that constitute the collateral securing the general

obligation. This differs from a pay-through security, (for example, a CMO) which generates all the cash flows needed to meet the required cash payments to the investors from the underlying mortgage assets. The only value of the collateral for a mortgage-backed bond is its liquidation value if the bond issuer defaults.

The market value of the mortgage loans collateralizing such mortgage-backed bonds either must be equal to or greater than the current market value of the bonds at the time of issuance. Periodically thereafter, the issuer is required to mark this collateral to market, and if the market value of the collateral is less than required, then the issuer must pledge additional mortgage loans as collateral in an amount equal to the shortfall. In contrast, for mortgage-backed securities like pass-throughs and CMOs, there is no requirement that additional assets be placed in the pool should the market value of the underlying assets decline because such securities are structured in such a way that, regardless of the market value of the underlying assets, the cashflows received from them are sufficient to pay the investors.

Stripped Mortgage-Backed Securities

Stripped mortgage-backed securities (SMBS) generally consist of two classes of securities with each class receiving a different portion of the monthly interest and principal cash flows from the underlying mortgage-backed securities. In its purest form, an SMBS is converted into an interest-only (IO) strip, where the investor receives 100 percent of the interest cash flows, and a principal-only (PO) strip, where the investor receives 100 percent of the principal cash flows.

All IOs and POs have highly volatile price characteristics based, in part, on the prepayment of the underlying mortgages and consequently on the maturity of the stripped security. Generally, POs will increase in value when interest rates decline while IOs increase in value when interest rates rise. Accordingly, the purchase of an IO strip may serve to offset the interest rate risk associated with mortgages held by a banking organization. Similarly, a PO may be useful as an offset to the effect of interest rate movements on the value of mortgage servicing rights.

For further and more detailed information on stripped mortgage-backed securities refer to the Product Summary entitled, Stripped Securities, which discusses stripped Treasury and mortgage-backed securities, including interest-only and principal-only strips, prepared by the Federal Reserve Bank of Chicago.

Footnotes

1 A mortgage loan servicer is responsible for collecting principal and interest payments on mortgages and remitting these funds to the owners of the loans or to a trustee representing the owners.

2 Assignment of the note and the execution of a recordable assignment of the mortgage instrument transfers ownership of the loan and the associated collateral interest from the originator to subsequent purchasers. The deed of trust, evidencing the lien on the property, typically permits the lender to sell the mortgage loan. When the loan is sold, the lender assigns the deed of trust in such a manner that the purchaser has all the legal rights of the original lender with respect to enforcement of the lien, as well as all of the obligations prescribed by the lien. These assignments are recordable on the land title records in the county where the property is located. As a result, the trustee owns the mortgages on behalf of the investors.

3 The term "collateralized" misrepresents the primary purpose of the underlying pools of mortgage assets. The mortgage assets underlying the CMO provide all of the cash flows from principal and interest payments with which to service the debt. Providing liquidation value in the event of default is not the primary purpose of the mortgage assets.

APPENDIX V

RISK-BASED CAPITAL PROVISIONS AFFECTING ASSET SECURITIZATION

The risk-based capital framework has three main features that will affect the asset securitization activities of banking organizations. First, the assignment of certain asset-backed securities to risk categories that are often lower than those assigned to direct holdings of the underlying pools of assets. This will create incentives for banking organizations to: 1) securitize certain assets in order to lower their capital requirements and 2) hold U.S. Government agency or U.S. Government-sponsored agency asset-backed securities because of the lower capital requirements associated with these assets. Second, bank holding companies that transfer assets with recourse as part of the securitization process will now have to hold capital against their off-balance sheet credit exposures. Third, banking organizations that provide credit enchancement to asset securitization issues through standby letters of credit or by other means will generally have to hold capital against the related off-balance sheet credit exposure. These last two features can be expected to raise the costs of securitization activities.

The risk weights assigned to an asset-backed security depend upon the issuer and whether the assets that comprise the collateral pool are mortgage-related assets. Asset-backed securities issued by a trust or single-purpose corporation and backed by nonmortgage assets are to be assigned a risk weight of 100 percent. Alternatively, if a bank issues an asset-backed security, then the security is accorded a 20 percent risk weight regardless of the nature of the underlying pool of assets.

Securities guaranteed by U.S. Government agencies and those issued by U.S. Government-sponsored agencies are assigned risk weights of zero and 20 percent, respectively, due to the low degree of credit risk. Accordingly, mortgage pass-through securities guaranteed by the Government National Mortgage Corporation (GNMA) are placed in the zero percent risk category. In addition, securities such as participation certificates,

collateralized mortgage obligations (CMO), and REMICS issued by the Federal National Mortgage Association (FNMA) or Federal Home Loan Mortgage Corporation (FHLMC) are assigned a 20 percent risk weight.

However, several types of securities issued by FNMA and FHLMC are excluded from the lower risk weight and slotted in the 100 percent risk category. Residual interests (e.g., CMO residuals) and subordinated classes of pass-through securities or CMOs that absorb more than their pro rata share of loss are assigned to the 100 percent risk weight category. Furthermore, all stripped mortgage-backed securities, including interest-only strips (IOs), principal-only strips (POs), and similar instruments are also assigned to the 100 percent risk weight category due to their structural characteristics which result in extreme price volatility and market risk. The treatment of stripped mortgage-backed securities will be reconsidered when a method to measure interest rate risk is incorporated into the risk-based capital guidelines.

A privately-issued mortgage-backed security that meets the criteria listed below is considered as a direct or indirect holding of the underlying mortgage assets and is assigned to the same risk category as those assets (e.g., U.S. Government agency securities, U.S. Government-sponsored agency securities, FHA and VA guaranteed mortgages, and/or conventional mortgages). The criteria that a privately-issued mortgage-backed security must meet in order to be assigned the same risk weight as the underlying assets are as follows:

1) the underlying assets are held by an independent trustee and the trustee has a first priority, perfected security interest in the underlying assets on behalf of the holders of the security;

2) either the holder of the security has an undivided pro rata ownership interest in the underlying mortgage assets or the trust or single purpose entity (or conduit) that issues the security has no liabilities unrelated to the issued securities;

3) the security is structured such that the cash flow from the underlying assets in all cases fully meets the cash flow requirements of the security

without undue reliance on any reinvestment income; and

4) there is no material reinvestment risk associated with any funds awaiting distribution to the holders of the security.

Those privately-issued mortgage-backed securities that do not meet the above criteria are to be assigned to the 100 percent risk category.

If the underlying pool of mortgage assets is composed of more than one type of asset, then the entire mortgage-backed security is assigned to the category appropriate to the highest risk weighted asset in the asset pool. For example, if the security is backed by a pool consisting of U.S. Government-sponsored agency securities (e.g., FHLMC CMOs) that qualify for a 20 percent risk weight and conventional mortgage loans that qualify for the 50 percent risk category, then the security would receive the 50 percent risk weight appropriate to the conventional mortgages.

Since conventional mortgage loans will generally be accorded a 50 percent risk weight, banks will have an incentive to securitize their mortgages. By selling or swapping their mortgages to FNMA or FHLMC, they will remove the assets with higher risk weights from their books altogether or exchange them for U.S. Government sponsored securities, which receive a lower 20 percent risk weight and are also more liquid. In addition, since government mortgage-backed securities are generally more favorably risk weighted, banks will also have an incentive to hold them rather than privately-issued mortgage-backed securities.

Banks that issue asset-backed securities but retain some risk of loss through direct or indirect recourse provisions must generally treat these transactions as financings for regulatory reporting purposes (certain exceptions apply to transactions involving pools of residential mortgages, which are discussed in Volume 2). The sponsor of an asset-backed security who retains recourse must reflect the underlying assets on its balance sheet and risk-weight them according to the risk-based capital guidelines.

Transfers of assets which do not involve recourse

or that are otherwise afforded sale treatment under regulatory reporting requirements are not reflected on the balance sheet and, therefore, are not factored into the risk-based capital ratio.

When accounting for sales of assets with recourse, bank holding companies follow generally accepted accounting principles (GAAP) rather than regulatory reporting requirements. GAAP permits such transactions to be treated as sales if certain criteria are met even when there is recourse back to the seller. Given the sale treatment for these transactions, bank holding companies currently do not have to hold capital against the off-balance sheet contingent liability. However, risk-based capital requires that capital be held against the off-balance sheet exposure arising from the contingent liability. This exposure is considered a direct credit substitute which is converted at 100 percent to an on-balance sheet credit equivalent amount for appropriate risk weighting.

Banking organizations that issue standby letters of credit to asset-backed security issues as a credit enhancement must hold capital against this contingent liability under the risk-based capital guidelines. The guidelines view a financial standby letter of credit as a direct credit substitute, which is converted at 100 percent to a credit equivalent amount. The credit equivalent amount is then risk weighted according to the counterparty or, if relevant, to any guarantee or collateral.

FOOTNOTES

1. Morrison, R. Clark,"Regulatory Problems in the Securitization of Bank Assets", Financial Services Yearbook, Volume 1, 1988, pg. 156.

2. Goldberg, Harold H.,"Asset Securitization and Corporate Financial Health", The Continental Bank Journal of Applied Corporate Finance, Fall, 1988, pg.50.

3. Goldberg, Craig J., and Rogers, Karen, " An Introduction to Asset Backed Securities", The Continental Bank Journal of Applied Corporate Finance, Fall, 1988, pg. 24.

4. Bryan, Lowesll L., "Structured Securitized Credit: A Superior Technology for Lending",The Continental Bank Journal of Applied Corporate Finance, Fall, 1988, pg. 15.

5. Ocampo, Juan M., and Rosenthal, James A., "The Future of Credit Securitization and the Financial Services Industry", The Continental Bank Journal of Applied Corporate Finance, Fall, 1988, pg. 32.

6. Morrison, supra at note 1, pg. 159.

7. Goldberg and Rogers, supra at note 3, pgs. 22 and 27.

8. Id. at pg. 28.

9. Waldman, Michael, and Delehanty, Thomas, "Introduction to Credit Card- Backed Securities", Salomon Brothers, Inc., August, 1986, pg. 4.

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BOOKS

Pavel, Christine, Securitization: Analysis and Development of the Loan-Based/ Asset-Backed Securities Markets, Probus Publishing Co., Chicago, 1989.

A comprehensive book, beginning with the basics of securitization, explaining each "player's" role - underwriter, issuer, etc.- credit enhancements, GAAP vs. RAP, SEC laws concerning underwriting of issues. Separate chapters on mortgage-backed securities, credit card receivables, securities backed by auto loans. This book is largely informational, more objective than argumentative in nature.

Rosenthal, James A., and Ocampo, Juan M., Securitization of Credit: Inside the New Technology of Finance, John Wiley & Sons, Inc., 1988.(copyright by McKinsey and Company, Inc.)

One-half of this book covers the basics of the securitization process, while the second half reviews some actual asset-backed security issues, including credit card, automobile, and commercial paper packages. While also informational in nature, the authors are clearly "pro-securitization".

Periodicals and Journals

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A weekly publication, this volume is wholly devoted to securitization, initially discussing risks of securitization and criteria used by this rating agency to assess a security issue, then reviewing some actual asset-backed security issues - their terms and the rationale for the rating accorded.

Asset Sales Report, by the American Banker/ Bond Buyer, New York.

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diversify portfolios, etc.. A more macro-oriented perspective on the process.

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The authors are officers of Moody's Investor Service Inc.. The article is a discussion of the implications of securitization on both a macro and micro level, and a good review of the risks associated with each step and player. Some explanation of what the rating agency looks at in reviewing asset-backed securities is also provided.

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Covers four major issues: (1), benefits of securitization, potential long term implications for the banking industry: (2), how regulatory postures affect development/ maturation of markets (SEC, FASB, and bank regulators): (3), banks' ability to securitize credit in light of Glass-Steagall Act, BHC Act (history of court rulings, Board and OCC opinions via applications); and (4), author's proposed regulatory framework - modifications to be made by SEC, OCC, and Fed.A

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Discusses Drexel's securitizing of junk bonds, afforded an investment grade rating. The spectrum of assets subject to securitization is clearly expanding.

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Ocampo, Juan M., and Rosenthal, James, A., "The Future

of Credit Securitization and the Financial Services Industry", The Continental Bank Journal of Applied Corporate Finance, Stern Stewart Management Services, Inc., New York, Fall, 1988, pgs. 90-100.

An excerpt from the previously- mentioned book by the same authors, this article discusses the authors' persectives on macroeconomic implications and potential ramifications of the securitization process.

Waldman, Michael, and Delehanty, Thomas, "Introduction to Credit Card-Backed Securities", Salomon Brothers, Inc., 1986.

A fairly comprehensive discussion of the basic characteristics of these securities and how they compare to other investment alternatives -e.g., CMOs, treasury issues of similar maturity. A review of a sample issue, and mathematical aspects of these securities - convexity, yields, effect of repayment rates, etc. A fairly objective document despite the sponsor having a vested interest in marketing these securities.